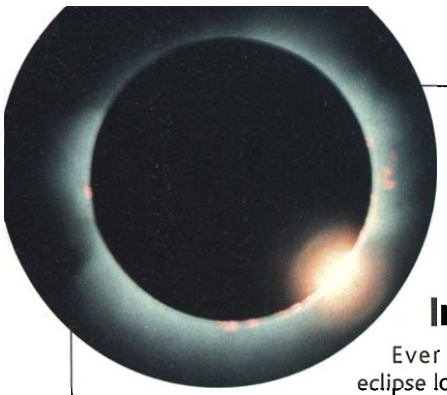
NETWATCH

edited by JOCELYN KAISER



WEBCAST

Eclipse Inside Out

Ever wondered what a solar eclipse looks like from orbit? Then log in to the Exploratorium in San Francisco on 21 June to see the millennium's first total solar eclipse as it moves across south and central Africa. Besides live video from Zambia around totality at 6:12 a.m. Pacific time, the Webcast will include a link to astronauts aboard the international space station, who will chat about what it's like to peer down on the moon's shadow.

www.exploratorium.edu/eclipse

RESOURCES

Fingerprinting a Killer

Much about cancer remains a mystery, but one thing is clear: Many tumors bear specific genetic signatures, changes that apparently make cell division run amok. A wealth of information on these mutations can be found at the Atlas of Genetics and Cytogenetics in Oncology and Haematology, a peer-reviewed site in France aimed at both researchers and clinicians.

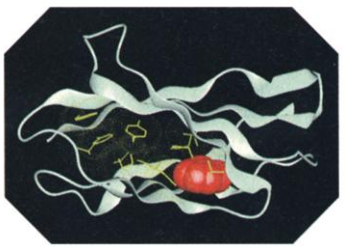
For each of 260 or so major genes known to be involved in cancer, visitors will find a "card"—an up-to-date summary—that describes the mutations, the altered protein that gene makes, and the type of tumor in which it's found. Links lead to more information in protein, gene, and MEDLINE databases. Other cards describe types of solid tumors and leukemias, as well as inherited diseases, such as piebaldism, that raise cancer risk.

The site's curators are also compiling several other useful resources: cancer genetics links, review papers, and teaching materials, including a primer on chromosomal abnormalities. In the site's first 4 years, 150 researchers have contributed; all the same, "we need more authors," e-mails editor Jean-Loup Huret of Poitiers University.

www.infobiogen.fr/services/chromcancer

REVIEW

Stuck on Fibronectin



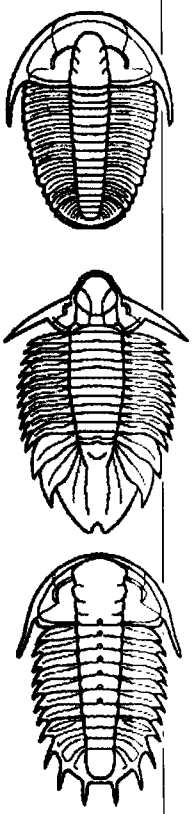
Wound healing, blood clotting, embryo development, and the ability of staph bacteria to stick to your tissues all depend on a large, sprawling protein called fibronectin. An image-rich online review* by a biochemist at the American Red Cross describes all facets of the adhesive molecule, from substructures (like the one shown) to experimental evidence for how it interacts with other biomolecules. Another overview of fibronectin can be found at this molecular structures site.†

* **www.gwumc.edu/biochem/ingham/fnpage.htm**

† **www.callutheran.edu/BioDev/omm/fibro/fibro.htm**

FIELD GUIDES

Trilobite Junction



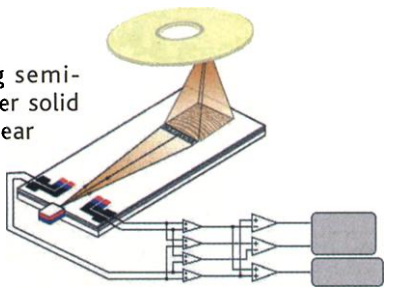
The animals known as trilobites died out ages ago, and at first glance they all look a lot like a cross between a horseshoe crab and a pill bug from your garden. But that doesn't stop paleobiologists and fossil collectors from being fascinated by this diverse group of prehistoric arthropods. A Guide to the Orders of Trilobites, maintained by Sam Gon III, a scientist in Hawaii, offers a huge compendium of trilobite lore and images.

At least 15,000 species of trilobites lived over 300 million years ago in the Paleozoic oceans; their hard shells left plenty of fossils. The site's Frequently Asked Questions cover topics such as the critters' size (1 millimeter to half a meter), detailed morphology, phylogeny, and feeding habits (trilobites ranged from zooplankton predators to detritus scavengers). Fact sheets illustrated with Gon's own line drawings describe each of the eight trilobite orders, while galleries feature photos culled from other Web sites. Gon, who based the site on two trilobite treatises, is a biologist with The Nature Conservancy in Hawaii, but he cautions that he's merely an "enthusiastic amateur" trilobitologist.

www.aloha.net/~smgon

APPLETS

Computer Chip Physics



The physics underlying semiconductor chips and other solid state devices can be a bear for students to understand, but smoothing the way is this collection of teaching animations. Created by electrical engineering professor Chu Wie of the State University of New York, Buffalo, the 51-and-counting applets explain both basics—such as 3D crystal structures, and how a laser reads the 0's and 1's encoded by a compact disc—and more esoteric topics, such as something called a "bipolar junction transistor." Wie says his site attracts everyone from grad students to schoolchildren checking out the animation of how microchips are manufactured.

jas.eng.buffalo.edu

Send great Web site suggestions to netwatch@aaas.org

CREDITS: (TOP LEFT) R. HIPSCHMAN/EXPLORATORIUM; (BOTTOM LEFT) K. INGHAM